

A MENTALLY RETARDED PATIENT WITH SCHIZOPHRENIA

Rabia K, MMed(FamMed)

EM Khoo, MRCP, FAMM, FAFP (Hon), University of Malaya

Address for correspondence: Dr Rabia Khatoon, P.O. Box 136308; Jeddah 21313, Kingdom of Saudi Arabia

ABSTRACT

Schizophrenia is one of the most incapacitating forms of mental disorder that runs a chronic and relapsing course. It typically starts in adolescence or early adulthood and can be life-long. It is more common in people with learning disabilities than in the general population. Its prodromal features include depression, anxiety, suspiciousness, social isolation and bizarre behaviour. It may result in significant functional, social and economic impairments. The care of patients with schizophrenia places a considerable burden on all carers including patient's family, health and social services. Treatment includes pharmacotherapy and psychosocial interventions. In this case report we describe a thirteen-year-old patient with schizophrenia who has a background history of mental retardation.

Keywords: schizophrenia, depression, anxiety, psychosocial intervention, mental retardation.

Rabia K, Khoo EM. A mentally retarded patient with schizophrenia. *Malaysian Family Physician*. 2008;3(3):146-150

CASE SUMMARY

SNS, a thirteen-year-old girl, was brought to our clinic by her father with a recent onset of a change in behaviour. One month prior to her visit, she became more talkative, irritable, talking to herself, roaming around the school and house aimlessly. She was verbally abusive particularly when her mother told her to be quiet. She disturbed her neighbourhood and was destructive towards their property. She had even broken her neighbour's glass window. She had poor sleep and appetite, as well as visual hallucinations; however she denied having any auditory hallucinations and delusions.

There was no recent history of seizures, high-grade fever, head injury or fluctuating consciousness suggestive of delirium. There were no stressors at home and school, and she denied having suicidal intentions. She had never taken any traditional medication or illicit drugs. For the past one month, she had given up her schooling and was not taking care of her personal hygiene and feeding. Prior to her visit to the hospital, her parents sought treatment from a *bomoh* (traditional healer), but her condition worsened gradually. Her parents found it difficult to take care of her at home due to her queer behaviour. Her father was very worried and suspected that she might have mental problem. He wanted her to be admitted to the hospital for treatment and care.

Her past medical history revealed that she had febrile fits at the age of six years old and was admitted to the hospital. She had investigations that included an electroencephalogram (EEG), which turned out to be normal. She had another episode of seizures at the age of twelve while in school, and the episode was witnessed by her class teacher. She again had another EEG carried out, with an equivocal report. The attending doctor explained to her parents, about the possibility of a false

negative result and the need of antiepileptic treatment. However her father was not very keen for her to have long-term medications.

There was no history of physical, emotional and psychological abuse. She had no previous history of psychiatric illness. She was born prematurely at seven months of age and stayed for ten days in hospital for neonatal jaundice. She had delayed developmental milestones and had only started walking after two years of age. She was noted to have delayed speech and started to talk after three years old. Her school performance had always been very poor, and in primary school she was last in her class and recently she had failed her primary school public examination.

She was the only child from his father's second marriage. It was a non-consanguineous marriage. Her father had separated from his first wife, who had two children, and both of them were healthy. There was no family history of mental illness, mental retardation, febrile fits and epilepsy. She was a much pampered child especially by her father. He described her as an introvert who did not mix much with other children. Her premorbid temperament was very childish; she liked to play with children who were younger than her. She did not have close friends. She also had lack of confidence and because of this her parents never allowed her to go out on her own. Nonetheless premorbidly she could manage her daily living needs and at times helped her mother in daily chores. Her mother was a housewife and her father worked as a clerk in a government office. Their financial status was satisfactory.

On examination she was alert and her vital signs were stable. There was no neck stiffness but she had a syndromic facies. Her systemic examinations were unremarkable. She had

disorganized behavior, poor eye contact and talked irrelevantly and continuously. She was agitated and non-cooperative and had poor insight. Her mood was elated and she grinned inappropriately. There was no abnormal movement. She had pressure of speech, her affect was inappropriate and there was looseness of associations. She was oriented to place and person but not to time. Her attention and concentration were poor. Registration and recall were difficult to obtain.

A provisional diagnosis of mental retardation with schizophrenia and a differential diagnosis of bipolar affective disorder with manic phase were considered. She was urgently referred to a psychiatrist and subsequently admitted to the psychiatric ward with a diagnosis of schizophrenia. In the ward she was referred to a psychologist and had an intelligent quotient (IQ) test, which showed that she had mild mental retardation. Her electroencephalogram (EEG) and thyroid function test were normal. She was commenced on antipsychotics drugs: risperidone and chlorpromazine. Subsequently, due to poor early response to oral medications, she was given electroconvulsive therapy (ECT).

Psycho-education was given to the patient and her family members. Her parents were counselled and educated with regards to schizophrenia and its treatment, the importance of compliance and good family relationship and support, as well as the importance of regular follow up. She was discharged when her condition was stable and her parents assured the doctors that they could manage her at home. She was regularly followed up in the psychiatric clinic by psychiatrist and psychologist. After two months she was well and was responding to treatment. She had no side effects to treatment. She slept well and had good appetite. She was not disturbing nor had any aggressive behaviour. She was able to help her mother in simple daily chores. She was also referred to the social worker for consideration of welfare benefits of mentally disabled. She was advised to attend classes at special school where she can obtain vocational training.

SNS illness has a major impact on her parents' physical, social, emotional, psychological health as well as financial burden. Her parents initially thought that their daughter were charmed by black magic and had sought treatment from *bomoh* (traditional healer). When they found no improvement in her condition, they turned to Western treatment. Her parents were very concerned and worried about her mental retardation and her future.

Her parents were informed that she would get vocational training at the special school, which could help her financially in future. She would also be entitled to get free health care.

However there are still other issues to consider in this patient and her family such as her future placement and who would take care of her socially and financially after her parents die.

There is also issue of sexuality, and marriage. She would also be at risk of sexual abuse as people may take advantage of her mental retardation and the issue of contraception will need to be dealt with. All these issues would need to be discussed and plan in the medium and long-term with her carers.

DISCUSSION

SCHIZOPHRENIA

The lifetime prevalence of schizophrenia is about 1%. According to the WHO, schizophrenia is one of the leading causes of disability worldwide and approximately 10% of patients with schizophrenia may die of suicide.¹

Definition of schizophrenia

Schizophrenia is defined in DSM-IV-TR² as a psychiatric condition with two or more of the following: delusions, hallucinations, disorganized speech (e.g. incoherence), catatonic behaviour, negative symptoms, i.e. affective flattening, avolition and anhedonia. These symptoms should be present for a significant portion of time during one-month period or less if successfully treated. One or more major areas of functioning such as work, interpersonal relations, or self-care should be markedly below the level achieved prior to the onset, however when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement need to be considered. These symptoms should persist for at least 6 months (however, in ICD-10³, the duration should be at least one month to qualify the diagnosis of schizophrenia). The disturbance should not be due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. If there is a history of Autistic Disorder or another Pervasive Developmental Disorder, the additional diagnosis of Schizophrenia should be made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated).

In case of SNS she had visual hallucination, disorganized speech and behavior; however she had no delusions and other negative symptoms. SNS has more than one-month duration of symptoms prior to her treatment; though prodromal period was not manifested in her case. Her interpersonal relationships, self care and academic achievement was badly affected and she had no history of substance abuse and abnormality of general medical condition. She also had no history of autistic disorder and pervasive developmental disorder.

Aetiology of schizophrenia

The aetiology of schizophrenia is uncertain, although there is evidence for genetic and environmental risk factors. Among the genetic factors, there is 10-15% increased risk in the siblings of patient with schizophrenia, 15% increased risk

among children with one parent with schizophrenia, and 40% increased risk if both parents are affected.⁴ Predisposing factors for schizophrenia include abnormalities of pregnancy and labour, which include premature rupture of membranes, low birth weight and birth events that are linked to infection and hypoxia, low social class and social deprivation. Stressful life events occurring shortly before the disorder are important precipitating factors.⁴

MENTAL RETARDATION

Mental retardation (MR) is present in 2-3% of the population, either as an isolated finding or as part of the syndrome.⁵ It can be defined as a cognitive ability that is markedly below average level and a decreased ability to adapt to one's environment. The causes of MR are numerous and include genetic and environmental factors. In at least 30-50% of cases, physicians are unable to determine the aetiology despite thorough evaluation. MR is divided into 5 categories, borderline, mild, moderate, severe and profound. Diagnosis of MR is highly dependent on a comprehensive personal and family history, a complete physical examination and a careful developmental assessment of the patient. SNS had delayed developmental milestones.

Physicians should have high index of suspicion to consider the diagnosis of mental retardation in any child. Some helpful clues include the findings in the child of delayed speech, dysmorphic features, generalised hypotonia or of the extremities, general inability to do things for self and expressed concern by parents. Information should be obtained about the family units, parent's occupations and educational achievements, educational and developmental status of the siblings, and the role of the patient in the family. Child should be examined closely for dysmorphic features or other minor abnormalities. This will guide appropriate evaluations and referrals for genetic counselling, early intervention programmes for the child and offer appropriate resources that may support the family.⁵

Referral can be made to a tertiary level child development unit that can provide interdisciplinary evaluations which include developmental assessment by paediatrician, geneticist, neurologist and ophthalmologist, as well as functional assessment by occupational and physical therapists, speech and language pathologist, audiologist, psychologist, nutritionist and child psychiatrist.⁵ The role of teacher is very imperative in early recognition of MR, especially in children who are slow learners.

However in the case of SNS, the diagnosis of MR was somehow missed and she had been attending normal school despite very poor school performance.

PSYCHIATRIC DISORDER AND MENTAL RETARDATION

Psychiatric disorder is more common in people with learning disabilities than in general population. Organic, social, and educational factors are contributory. Nearly all adults with severe MR have structural brain disease, and epilepsy is more common in this population. SNS had two past episodes of seizures. Rutter and colleague in their study, showed a clear association between neurological abnormality, epilepsy, learning disability and psychiatric disorder. In addition to these organic factors education failure, rejection and lack of social acceptance, reduced or lack of job opportunities, diminished self esteem, sexual difficulties and problems of dysmorphic appearance have increased the susceptibility to this disorder.⁶

People with learning disabilities experience the gamut of anxiety neurotic and depressive reactions, states of panic, unhappiness, loss and bereavement. An estimated 15% of adults with severe learning disabilities have a severe associated behavioural disorder. These behavioural disorders may include self-injury, restlessness, aggressiveness, noisiness and destructiveness; impulsivity and imperviousness to pain.⁷ Experts estimated that the emotional, behavioural and psychiatric disorders are three to four times more common in people with MR and developmental disabilities than the public.⁸ People with dual diagnosis of schizophrenia and MR are often overlooked and neglected. This is due to the symptoms of mental illness are different in individuals with cognitive impairments. Individual with cognitive impairment may not articulate delusion in the same way as others without. In case of SNS, it was very difficult to elicit the history of delusion and hallucinations because of her concurrent MR.

MANAGEMENT OF SCHIZOPHRENIA

Management of schizophrenia involves hospitalization, biopsychosocial and physical measures.⁹ The primary aim of treatment is a rapid remission of the acute psychotic episode using the most effective and best-tolerated drugs.¹ Nearly 80% of patients with first episode of schizophrenia will eventually recover; up to 70 % of patients will have a second episode within five to seven years.¹

Antipsychotic drugs

New antipsychotic drugs such as risperidone, olanzapine, clozapine and quetiapine are effective in treating positive and negative symptoms of schizophrenia.¹⁰ It has side effects such as increased blood sugar and serum lipids, which require close monitoring.¹¹ However the comparative lack of side effects of these atypical antipsychotic drugs as compared to conventional antipsychotics, improved the drug compliance during maintenance and thus reduce the risk of relapse.¹⁰

Supportive psychotherapy

The best-studied form of psychotherapy, which can enhance drug treatment, is supportive psychotherapy.⁹ The essential

of this treatment is to form a trusting relationship with the patients and to make them feel comfortable with the therapist. It also focuses on present issues; helping to develop social skills, and teaching coping and problem solving techniques.⁸ Psychotherapy was given especially to SNS's parents, so that they could better cope with her illness.

Supportive psychotherapy encompasses various activities intended to prevent relapse or deterioration and to overcome symptoms. In supportive therapy, positive efforts are made to minimize anxiety and to enhance self-esteem. It emphasized on working together with the patient to achieve results.¹²

Vocational rehabilitation

Vocational training plays an important role in the rehabilitation and management of these patients. Vocational service providers focus their efforts on social skills training; supportive therapies to address work readiness and demoralization issues.¹³ Working with peers can facilitate a sense of individual empowerment and offer role-modelling opportunities through exposure to others who have faced similar obstacles.¹³ In case of SNS perhaps; she would benefit from vocational rehabilitation training and learn some social skills.

People with schizophrenia often encounter stigmatization and discrimination. The family physician, apart from focus on treatment, should put emphasis on holistic and social approach, as treatment failure is the result of breakdown in social circumstances. Psychological intervention particularly cognitive behavioural therapy (CBT) and family interventions are recommended, as an indispensable part of the treatment for people with schizophrenia and their families.¹⁴

Family intervention for schizophrenia

Families play a big role in helping to reduce relapses. Families need to be educated about the illness and taught to identify and avoid problem situations. Families are in a pivotal position to discern sign and symptoms of an impending relapse and thus prevent them from setting full-blown disease. Studies have shown that a high expressed emotion includes critical comments and hostility among family members, can increase the risk of relapses.⁹ It is also important to work with the family to improve their knowledge of the condition and to nurture emotional relationships and communication between patient and their carers.¹

Families also need help with their own personal emotional response to their relative's illness and may benefit from techniques in stress management, and coping strategies.⁹ Family intervention strategy was used in SNS case because it was difficult for the family to accept the illness especially in circumstance where parents were aware that the child is subnormal. SNS parents were educated about the illness, and taught to avoid problem situations and hostile attitude. There is a role of support groups for family members, and it would

help them to share experiences and emotions. These groups may also later be empowered to campaign the rights of the mentally ill patients and help to destigmatise mental illness.⁹

Cognitive behavior therapy

Cognitive behavioural therapy (CBT) is now the fastest growing treatment modality for psychosis. CBT improve the cognitive impairments associated with schizophrenia such as distractibility, poor attention and memory impairment. Studies have shown that it has a significant effect on positive symptoms such as hallucinations and delusions.⁹ However it might be difficult to apply in patients with mental retardation as in SNS it was not used as treatment modality.

Behavioural therapy

Behavioural therapy addresses the patient's abilities and deficits. Many patients lose their basic social skills due to illness process, and make them unable to function socially. The social skills of patients can be taught through role-play, videotape reviewing of others or performing assignment.⁹ Again it might be difficult to apply in patients with concurrent mental retardation.

Group therapy

Group therapy can reduce social deprivation and isolation, improve relationships and help the patient to seek solutions for their problems.⁹ However the role of group therapy in mentally retarded patient with schizophrenia like SNS is difficult to ascertain because of their subnormal IQ level they cannot participate effectively in these interventions.

Psycho-education

Poor medication adherence is one of the major determinants of outcome in schizophrenia. Compliance can be improved by using educational intervention such as psycho-education that has the potential of increasing patient's understanding of, and insight into their illness and its treatment and thereby improving prognosis. It can reduce health care costs and burden that schizophrenia places on the individual, their families and the community.¹⁴⁻¹⁵

Cochrane systematic review has shown that psycho-educational intervention significantly decreases relapse or readmission rates in patients with schizophrenia compared with standard care.¹⁵

Role of psychologist

Psychologists apply measures to assess the effectiveness of medications and interventions to increase the medications compliance by using behaviour management technique. They can help to reduce the stress faced by patients with schizophrenia by teaching them stress management skills, environmental management skills and social skills, which are necessary to build up their social networks.

Psychologists can educate the patients and their family recognition of impending illness and strategies to reduce its likelihood. They assess the needs of the patients to determine the most appropriate resources to help them in their daily living. For instance behavioural and skills training approaches can improve patients functioning and help them to develop support systems in their environment.¹⁶ SNS was referred to psychologist for assessment, IQ test, and subsequent management.

The close liaison between psychiatrists, psychologists, primary care professionals, educational and vocational services can help to diagnose the disorder early and allow early treatment and rehabilitation.¹ Health education programmes can create greater awareness among the general public about psychosis and the need for prompt self-referral or referral by caregivers. Close ties need to be developed between key agencies in contact with adolescence and young adults for example teachers and health workers to facilitate the pathway to care for those experiencing recent onset of psychosis.¹⁰

CONCLUSION

Family physicians have a pivotal role in early identification, diagnosis and management of schizophrenia, and in close monitoring of patients who are at high risk. They can educate patients and their caregivers about the illness and suggest practical coping strategies that may result in reduced risk of relapses. Health education programmes can create better awareness among the public about psychosis and the need for timely self-referral or referral by caregivers. The role of health care workers and teachers is vital in early identification of children with mental retardation especially those who have learning disability. This will guide proper evaluations and referrals so that early intervention can be done for the child.

REFERENCES

1. Frangou S, Byrne P. How to manage the first episode of schizophrenia. *BMJ*. 2000;321(7260):522-3
2. Frances A. Diagnostic criteria of DSM-IV Text Revision. American Psychiatric Association. 2000.
3. International Statistical Classification of Diseases and Related Health problems Tenth Revision. 1993 Geneva, World Health Organization.
4. Gelder ML. Oxford psychiatry Textbook. 1998;159.
5. Daily DK, Ardinger HH, Holmes GE. Identification and evaluation of mental retardation. *Am Fam Physician*. 2000;61(4): 1059-67,1070 [PubMed] [Full text]
6. Reid AH. Psychiatric services for people with learning disabilities. *BMJ*. 1995;310(6994):1549-50 [PubMed] [Full text]
7. Voelker R. Putting mental retardation and mental illness on health care professionals' radar screen. *JAMA*. 2002;288(4):433-6 [PubMed] [Full text]
8. Garralda E. Schizophrenia in children and adolescent. *J Neurol Neurosurg Psychiatry*. 2001;71(3):417
9. George PP. Current trends in the management of schizophrenia. *Med J Malaysia*. 2002;57(1):128-31 [PubMed]
10. McGrath J, Emmerson WB. Treatment of schizophrenia. *BMJ*. 1999;319(7216):1045-8 [PubMed] [Full text]
11. Kato MM, Goodnick PJ. Antipsychotic medication: effects on regulation of glucose and lipids. *Expert Opin Pharmacother*. 2001;2(10):1571-82 [PubMed]
12. Lakeman R. Adapting psychotherapy to psychosis. *Australian e- journal for the Advancement of Mental health (AeJAMH)*. 2006;5(1) [Full text]
13. Cook J Razzano L. Vocational rehabilitation for persons with schizophrenia. Recent Research and implications for practice. *Schizophr Bull*. 2000;26(1):87-104 [PubMed] [Full text]
14. Mayor S. People with schizophrenia must have say in their treatment. *BMJ*. 2002;325(7376):1317 [PubMed] [Full text]
15. Pekkala E, Merinder L. Psychoeducation for schizophrenia. *Cochrane Database Syst Rev*. 2000, Issue 4. Art. No. CD002831.
16. Smith GB, Schwebel AI, Dunn RL, McIver SD. The role of psychologist in the treatment, management and prevention of chronic medical illness. *Am Psychol*. 1993;48(9):966-71

Low dose aspirin does not affect cognitive function in middle aged to elderly people at increased cardiovascular risk

Price JF, Stewart MC, Deary IJ, et al. Low dose aspirin and cognitive function in middle aged to elderly adults: randomised controlled trial. *BMJ*. 2008;337:a1198.

3350 men and women aged over 50 were prescribed either low dose aspirin (100 mg daily) or placebo for five years. There was no significant difference at follow-up between the two groups on their cognitive tests.